PYRAMID

congratulations...

on your purchase of a Pyramid Crystal Series amplifier. This amplifier extends the Pyramid tradition into a totally new series of amps, designed from the ground up to deliver the power, performance and flexibility the modern car audio enthusiast demands.

When you check the list of features offered by the PB481X, PB681X, PB781X, PB881X, PB1281X, and PB1881X, you'll know you made the right choice with a Pyramid Power amplifier.

table of contents

PYRAMID general features

PB481X

High Performance 600 Watt 2 Channel Bridgeable MOSFET Amplifier

- *300 Watts x 2 Output*
- *600 Watts x 1 Bridged Output*
- *Variable Hi/Lo Electronic Crossover Network*
- *Variable Bass Boost (0 - +18 dB @ 60Hz)*
- *Variable Input Level (Gain) Control*
- *Remote Turn On/Off*
- *Gold Plated RCA Inputs*
- *High Level MOLEX Input*
- *Power ON LED Indicator*
- *LED Protection Indicator*
- *S/N Ratio: > 95 dB*
- *THD: <0.04%*
- *Thermal Protection*
- *Overload Protection*
- *Short Circuit Protection*
- *Anti-Thump Turn-On*

PB781X

High Performance 1000 Watt 2 Channel Bridgeable MOSFET Amplifier

- *500 Watts x 2 Output*
- *1000 Watts x 1 Bridged Output*
- *Variable Hi/Lo Electronic Crossover Network*
- *Variable Bass Boost (0 - +18 dB @ 60Hz)*
- *Variable Input Level (Gain) Control*
- *Remote Turn On/Off*
- *Gold Plated RCA Inputs*
- *High Level MOLEX Input*
- *Power ON LED Indicator*
- *LED Protection Indicator*
- *S/N Ratio: > 95 dB*
- *THD: <0.04%*
- *Thermal Protection*
- *Overload Protection*
- *Short Circuit Protection*
- *Anti-Thump Turn-On*

PB1281X

High Performance 1600 Watt 2 Channel Bridgeable MOSFET Amplifier

- *800 Watts x 2 Output*
- *1600 Watts x 1 Bridged Output*
- *Variable Hi/Lo Electronic Crossover Network*
- *Variable Bass Boost (0 - +18 dB @ 60Hz)*
- *Variable Input Level (Gain) Control*
- *Remote Turn On/Off*
- *Gold Plated RCA Inputs*
- *High Level MOLEX Input*
- *Power ON LED Indicator*
- *LED Protection Indicator*
- *Remote Bass Boost*
- *S/N Ratio: > 95 dB*
- *THD: <0.04%*
- *Thermal Protection*
- *Overload Protection*
- *Short Circuit Protection*
- *Anti-Thump Turn-On*

general features

PB681X

High Performance 1000 Watt 4 Channel Bridgeable MOSFET Amplifier

- *250 Watts x 4 Output*
- *500W x 2 Bridged Output (250W x 2 + 500W x 1)*
- *Dual Variable Hi/Lo Electronic Crossover Network*
- *Dual Variable Bass Boost (0 - +18 dB @ 60Hz)*
- *Variable Input Level (Gain) Control*
- *Remote Turn On/Off*
- *Gold Plated RCA Inputs*
- *High Level MOLEX Inputs*
- *Power ON LED Indicator*
- *LED Protection Indicator*
- *S/N Ratio: > 95 dB*
- *THD: <0.04%*
- *Thermal Protection*
- *Overload Protection*
- *Short Circuit Protection*
- *Anti-Thump Turn-On*
- *Tri-Mode Configurable*

PB881X

High Performance 1200 Watt 4 Channel Bridgeable MOSFET Amplifier

- *300 Watts x 4 Output*
- *600W x 2 Bridged Output (300W x 2 + 600W x 1)*
- *Dual Variable Hi/Lo Electronic Crossover Network*
- *Dual Variable Bass Boost (0 - +18 dB @ 60Hz)*
- *Variable Input Level (Gain) Control*
- *Remote Turn On/Off*
- *Gold Plated RCA Inputs*
- *High Level MOLEX Inputs*
- *Power ON LED Indicator*
- *LED Protection Indicator*
- *S/N Ratio: > 95 dB*
- *THD: <0.04%*
- *Thermal Protection*
- *Overload Protection*
- *Short Circuit Protection*
- *Anti-Thump Turn-On*
- *Tri-Mode Configurable*

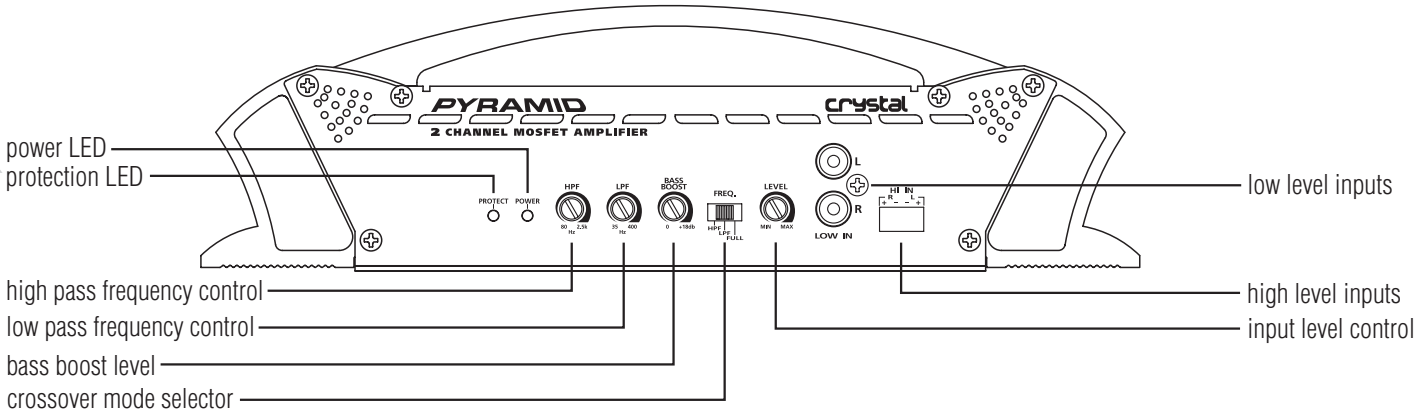
PB1881X

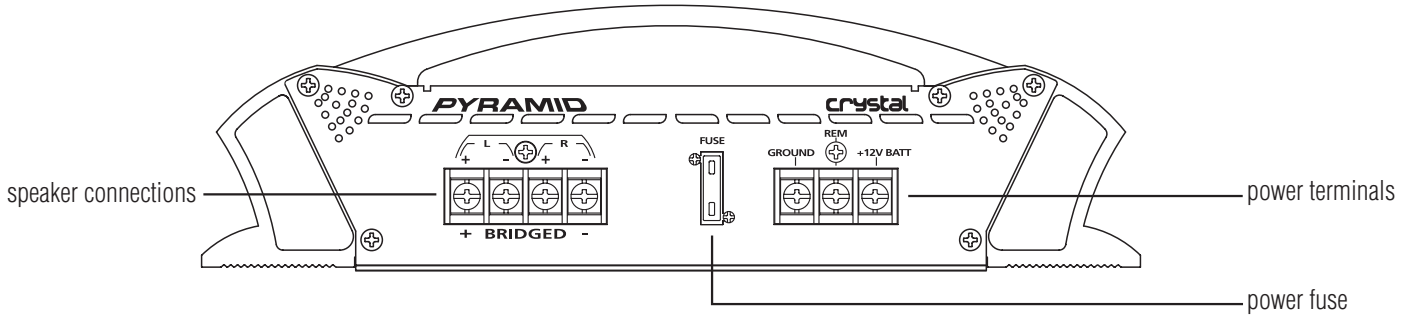
High Performance 1800 Watt 4 Channel Bridgeable MOSFET Amplifier

- *450 Watts x 4 Output*
- *900W x 2 Bridged Output (450W x 2 + 900W x 1)*
- *Dual Variable Hi/Lo Electronic Crossover Network*
- *Dual Variable Bass Boost (0 - +18 dB @ 60Hz)*
- *Variable Input Level (Gain) Control*
- *Remote Turn On/Off*
- *Gold Plated RCA Inputs*
- *High Level MOLEX Inputs*
- *Power ON LED Indicator*
- *LED Protection Indicator*
- *Remote Bass Boost*
- *S/N Ratio: > 95 dB*
- *THD: <0.04%*
- *Thermal Protection*
- *Overload Protection*
- *Short Circuit Protection*
- *Anti-Thump Turn-On*
- *Tri-Mode Configurable*

features and controls

2 ch amp PB48IX





PYRAMID features and specifications

2 ch amp PB481X

crossover mode selector when used with normal, full range systems, set this switch to "FULL." If you wish to use the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.

input level control use this control to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level control until distortion begins to occur, and reduce slightly from this point.

low pass frequency control when the crossover selector switch is in "low pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.

high pass frequency control when the crossover selector switch is in "high pass" mode, this control sets the lower frequency limit for audio program sent to the speakers.

bass boost level control this control permits adjustment of the bass level up to an increase of approximately 18 dB.

low level inputs this amp features gold-plated RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.

high level inputs if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.

power LED this indicator is illuminated when power is applied.

protection LED this indicator is illuminated when built-in protection circuitry is activated.

power fuse the fuse protects the amplifier and your car's electrical system from short circuit conditions.

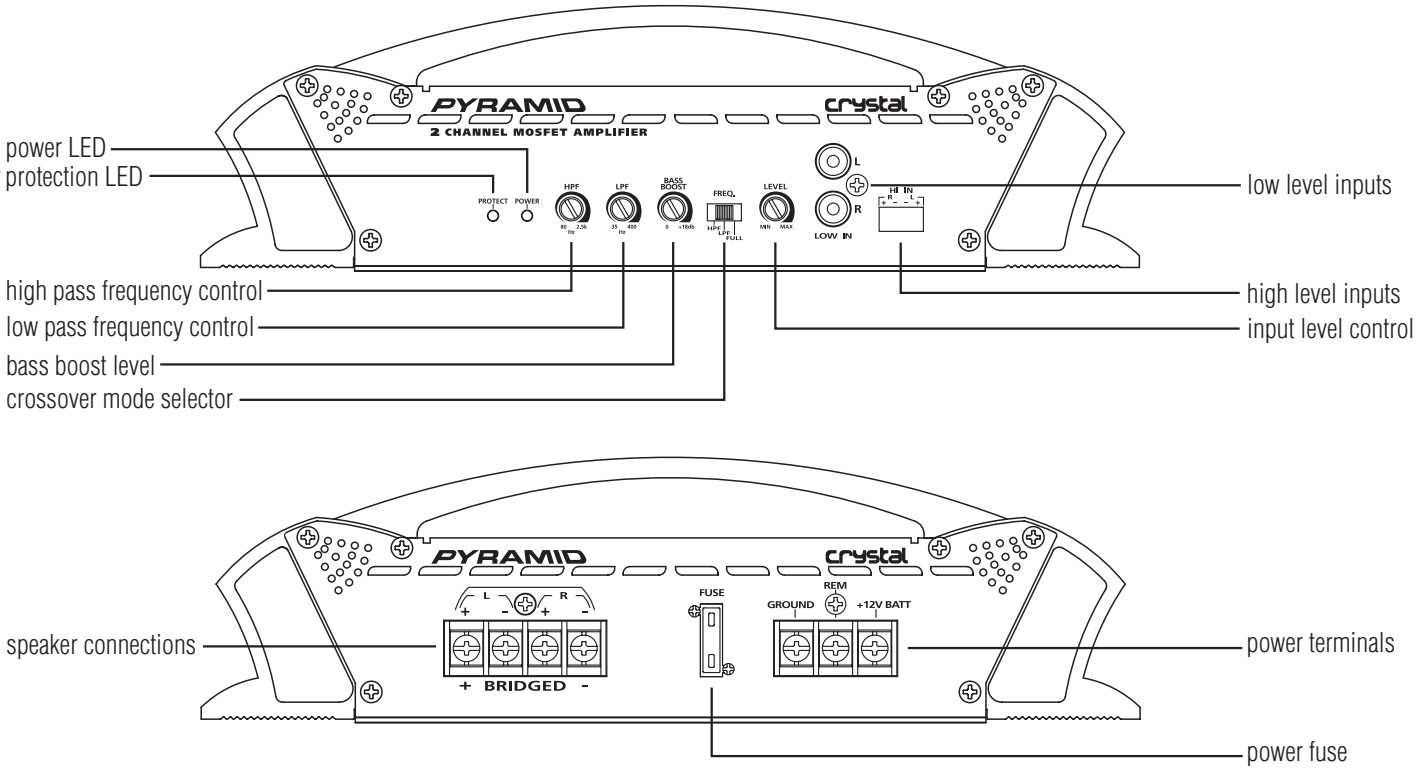
power terminals use these connectors to deliver power, ground and remote turn-on control to the amplifier.

speaker connections these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

output power @ 14.4v DC, 1KHz	
RMS Power @ 4 Ohms	*40 Watts x 2*
RMS Power @ 2 Ohms	*60 Watts x 2*
Maximum Power Output	*300 Watts x 2*
frequency response	*15 Hz-30 KHz*
input impedance	
low level inputs	*10K Ohms*
high level inputs	*100 Ohms*
input sensitivity	
low level inputs	*250mV*
high level inputs	*2.5V*
power supply voltage	*14.4V DC Neg. Ground (10.5-16V)*
matching speaker impedance	
stereo mode	*2-4 Ohms*
bridged mode	*4-8 Ohms*
maximum current draw	*15A*
dimensions (W x H x L)	
mm	*276 x 60 x 209*
inches	*10.9 x 2.4 x 8.25*

features and controls

2 ch amp PB781X



PYRAMID features and specifications

2 ch amp PB781X

crossover mode selector when used with normal, full range systems, set this switch to "FULL." If you wish to use the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.

input level control use this control to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level control until distortion begins to occur, and reduce slightly from this point.

low pass frequency control when the crossover selector switch is in "low pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.

high pass frequency control when the crossover selector switch is in "high pass" mode, this control sets the lower frequency limit for audio program sent to the speakers.

bass boost level control this control permits adjustment of the bass level up to an increase of approximately 18 dB.

low level inputs this amp features gold-plated RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.

high level inputs if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.

power LED this indicator is illuminated when power is applied.

protection LED this indicator is illuminated when built-in protection circuitry is activated.

power fuse the fuse protects the amplifier and your car's electrical system from short circuit conditions.

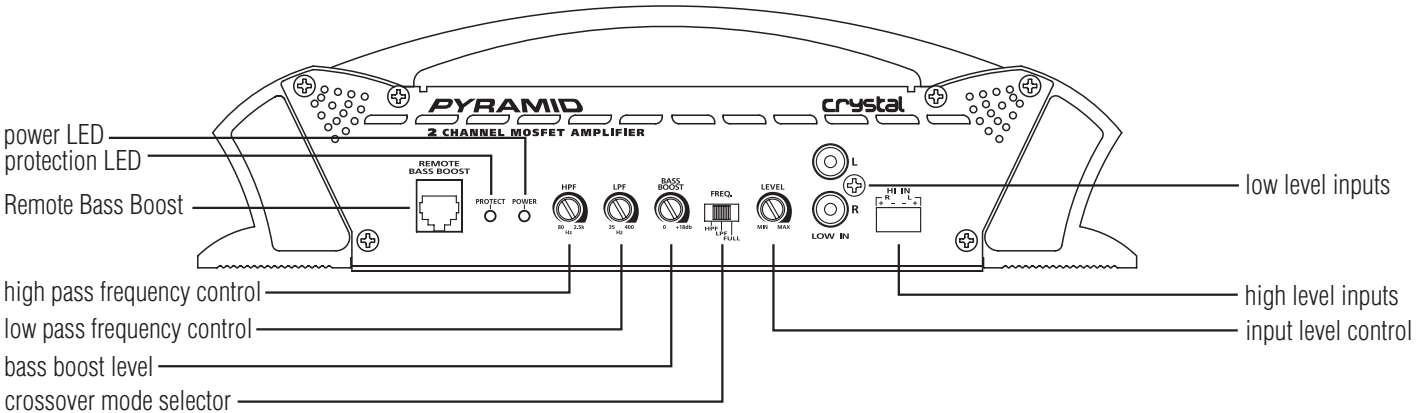
power terminals use these connectors to deliver power, ground and remote turn-on control to the amplifier.

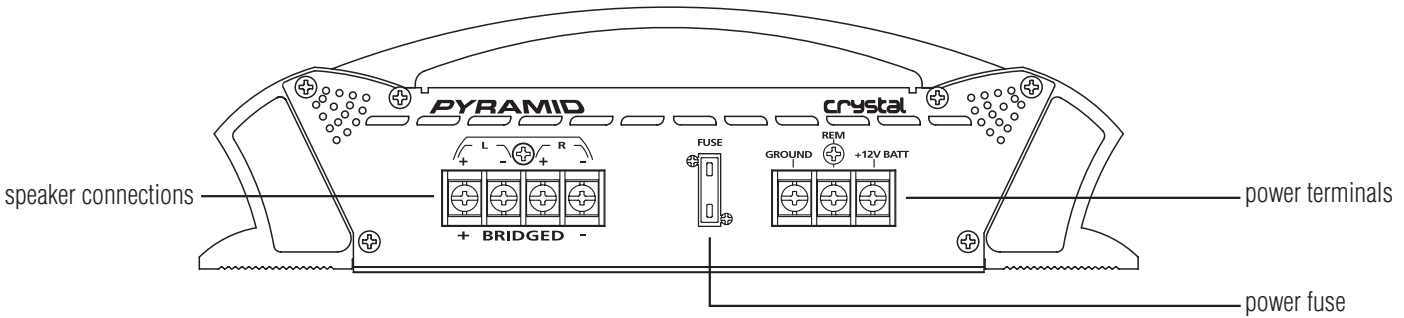
speaker connections these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

output power @ 14.4v DC, 1KHz	
RMS Power @ 4 Ohms	*50 Watts x 2*
RMS Power @ 2 Ohms	*75 Watts x 2*
Maximum Power Output	*500 Watts x 2*
frequency response	*15 Hz-30 KHz*
input impedance	
low level inputs	*10K Ohms*
high level inputs	*100 Ohms*
input sensitivity	
low level inputs	*250mV*
high level inputs	*2.5V*
power supply voltage	*14.4V DC Neg. Ground (10.5-16V)*
matching speaker impedance	
stereo mode	*2-4 Ohms*
bridged mode	*4-8 Ohms*
maximum current draw	*15A*
dimensions (W x H x L)	
mm	*276 x 60 x 279*
inches	*10.9 x 2.4 x 11*

features and controls

2 ch amp PB128IX





PYRAMID features and specifications

2 ch amp PB1281X

crossover mode selector when used with normal, full range systems, set this switch to "FULL." If you wish to use the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.

input level control use this control to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level control until distortion begins to occur, and reduce slightly from this point.

low pass frequency control when the crossover selector switch is in "low pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.

high pass frequency control when the crossover selector switch is in "high pass" mode, this control sets the lower frequency limit for audio program sent to the speakers.

Remote Bass Boost Plug in the Remote Bass Boost Control wire in here.

bass boost level control this control permits adjustment of the bass level up to an increase of approximately 18 dB.

low level inputs this amp features gold-plated RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.

high level inputs if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.

power LED this indicator is illuminated when power is applied.

protection LED this indicator is illuminated when built-in protection circuitry is activated.

power fuse the fuse protects the amplifier and your car's electrical system from short circuit conditions.

power terminals use these connectors to deliver power, ground and remote turn-on control to the amplifier.

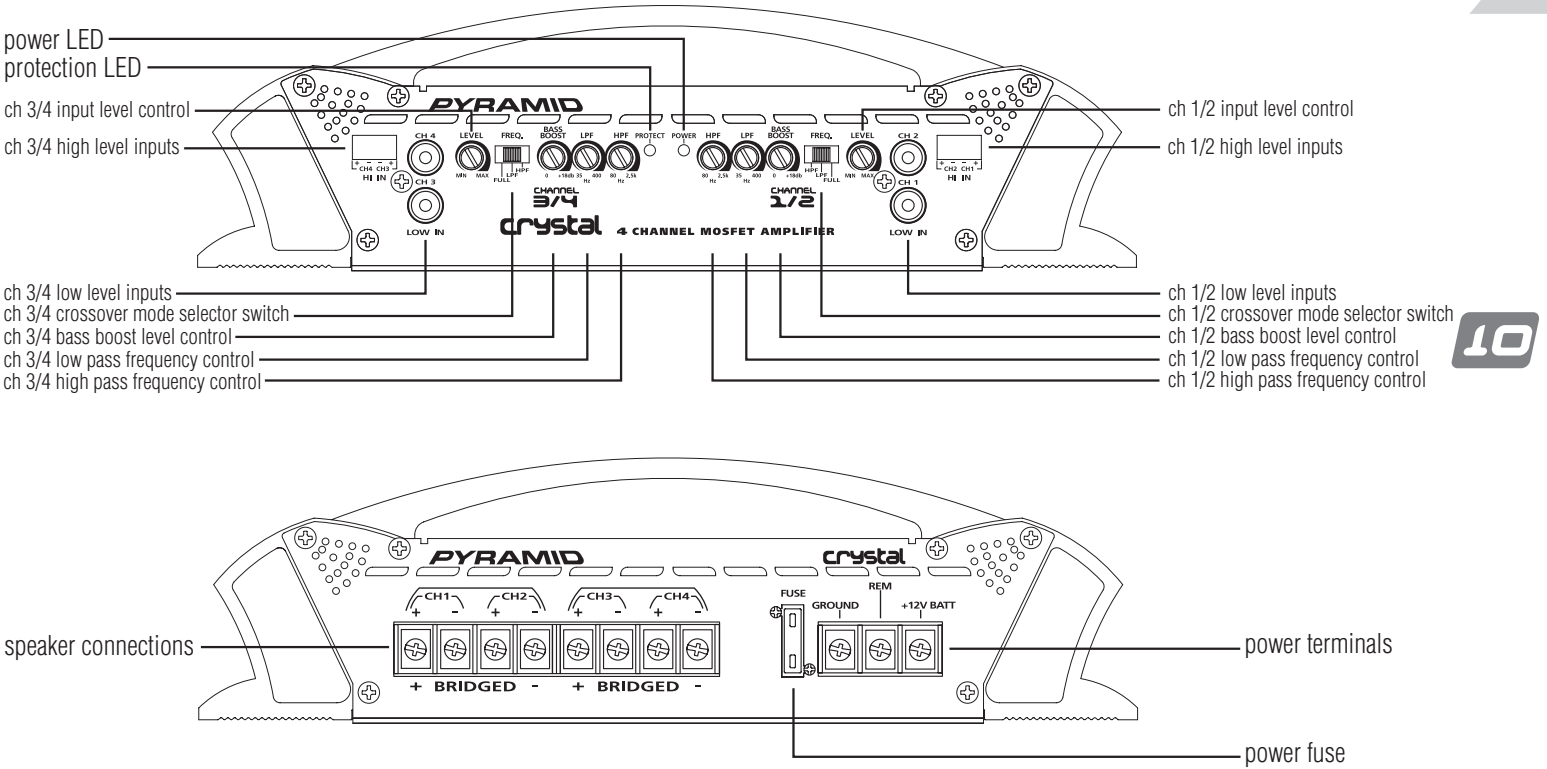
speaker connections these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

output power @ 14.4v DC, 1KHz	
RMS Power @ 4 Ohms	*75 Watts x 2*
RMS Power @ 2 Ohms	*120 Watts x 2*
Maximum Power Output	*800 Watts x 2*
frequency response	*15 Hz-30 KHz*
input impedance	
low level inputs	*10K Ohms*
high level inputs	*100 Ohms*
input sensitivity	
low level inputs	*250mV*
high level inputs	*2.5V*
power supply voltage	*14.4V DC Neg. Ground (10.5-16V)*
matching speaker impedance	
stereo mode	*2-4 Ohms*
bridged mode	*4-8 Ohms*
maximum current draw	*20A*
dimensions (W x H x L)	
mm	*276 x 60 x 394*
inches	*10.9 x 2.4x 15.5*

features and controls

4 ch amp PB681X • PB881X

pb681X
pb881X



features and specifications

4 ch amp PB681X • PB881X

dual crossover mode selectors when used with normal, full range systems, set these switches to "FULL." If you wish to use the internal crossovers to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.

dual input level controls use these controls to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level controls until distortion begins to occur, and reduce slightly from this point.

dual low pass frequency controls when one or both of the crossover selector switches is in "low pass" mode, one can set the upper frequency limit for audio program sent to the speakers.

dual high pass frequency controls when the one or both of crossover selector switch is in "high pass" mode, one can set the lower frequency limit for audio program sent to the speakers.

dual bass boost level controls this control permits adjustment of the bass level up to an increase of approximately 18 dB in either or both pairs of channels.

low level inputs this amp features gold-plated RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.

high level inputs if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.

power LED this indicator is illuminated when power is applied.

protection LED this indicator is illuminated when built-in protection circuitry is activated.

power fuse the fuse protects the amplifier and your car's electrical system from short circuit conditions.

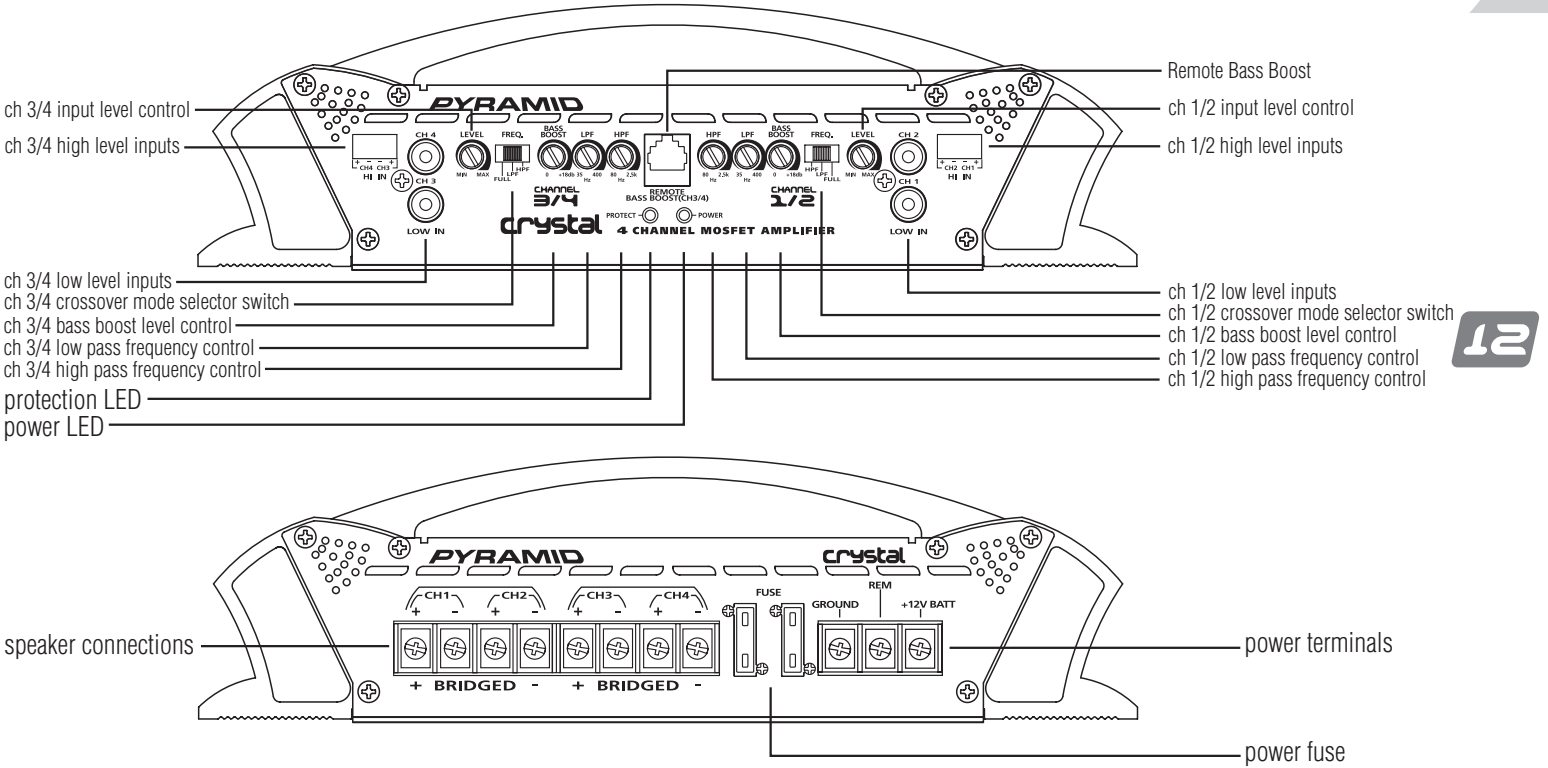
power terminals use these connectors to deliver power, ground and remote turn-on control to the amplifier.

speaker connections these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

	PB681X	PB881X
output power @ 14.4v DC, 1KHz		
RMS Power @ 4 Ohms	35 Watts x 4	50 Watts x 4
RMS Power @ 2 Ohms	55 Watts x 4	60 Watts x 4
Maximum Power Output	250 Watts x 4	300 Watts x 4
frequency response	15 Hz-30 KHz	
input impedance		
low level inputs	10K Ohms	
high level inputs	100 Ohms	
input sensitivity		
low level inputs	250mV	
high level inputs	2.5V	
power supply voltage	14.4V DC Neg. Ground (10.5-16V)	
matching speaker impedance		
stereo mode	2-4 Ohms	
bridged mode	4-8 Ohms	
maximum current draw	20 A	30 A
dimensions (W x H x L)		
mm	276 x 60 x 305	276 x 60 x 394
inches	10.9 x 2.4 x 12	10.9 x 2.4 x 15.5

features and controls

4 ch amp PB188IX



PYRAMID features and specifications

4 ch amp PB1881X

dual crossover mode selectors when used with normal, full range systems, set these switches to "FULL." If you wish to use the internal crossovers to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.

dual input level controls use these controls to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level controls until distortion begins to occur, and reduce slightly from this point.

dual low pass frequency controls when one or both of the crossover selector switches is in "low pass" mode, one can set the upper frequency limit for audio program sent to the speakers.

dual high pass frequency controls when the one or both of crossover selector switch is in "high pass" mode, one can set the lower frequency limit for audio program sent to the speakers.

CH 3/4 Remote Bass Boost Plug in the Remote Bass Boost Control wire in here.

dual bass boost level controls this control permits adjustment of the bass level up to an increase of approximately 18 dB in either or both pairs of channels.

low level inputs this amp features gold-plated RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.

high level inputs if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.

power LED this indicator is illuminated when power is applied.

protection LED this indicator is illuminated when built-in protection circuitry is activated.

power fuse the fuse protects the amplifier and your car's electrical system from short circuit conditions.

power terminals use these connectors to deliver power, ground and remote turn-on control to the amplifier.

speaker connections these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

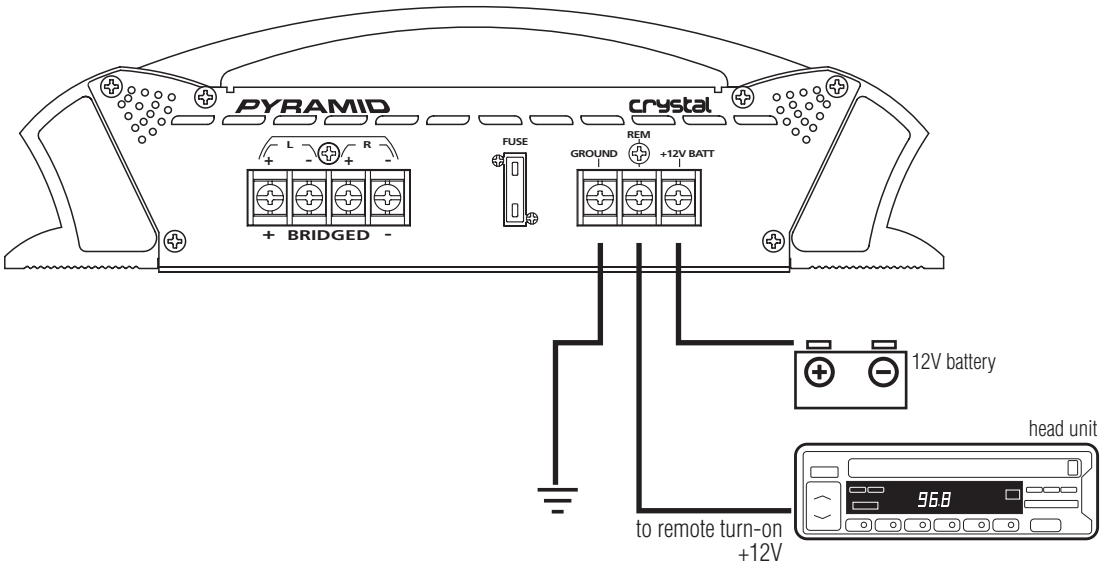
PB1881X

output power @ 14.4v DC, 1KHz	
RMS Power @ 4 Ohms	*75 Watts x 4*
RMS Power @ 2 Ohms	*120 Watts x 4*
Maximum Power Output	*450 Watts x 4*
frequency response	*15 Hz-30 KHz*
input impedance	
low level inputs	*10K Ohms*
high level inputs	*100 Ohms*
input sensitivity	
low level inputs	*250mV*
high level inputs	*2.5V*
power supply voltage	*14.4V DC Neg. Ground (10.5-16V)*
matching speaker impedance	
stereo mode	*2-4 Ohms*
bridged mode	*4-8 Ohms*
maximum current draw	*40 A*
dimensions (W x H x L)	
mm	*276 x 60 x 432*
inches	*10.9 x 2.4 x 17*

electrical connections

2 ch amp PB48IX • PB78IX • PB128IX

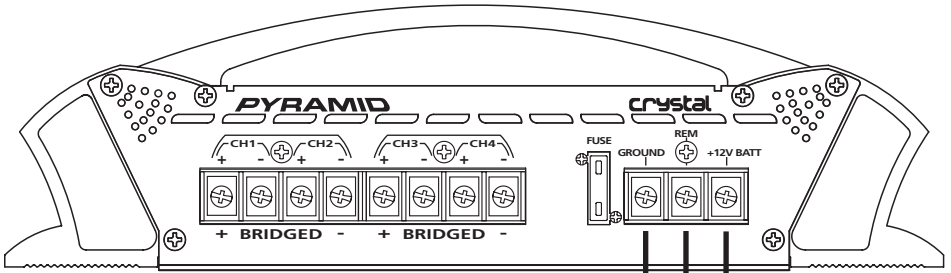
pb48IX
pb78IX
pb128IX

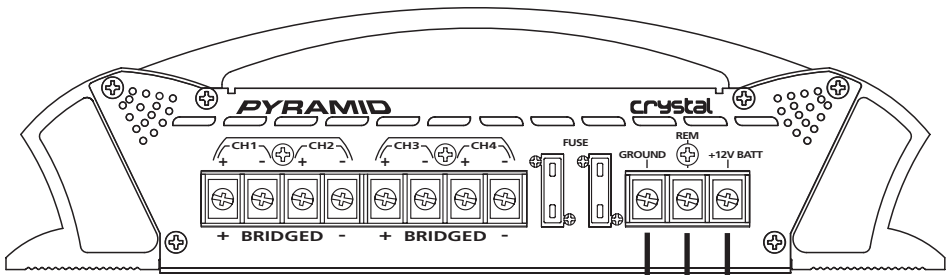


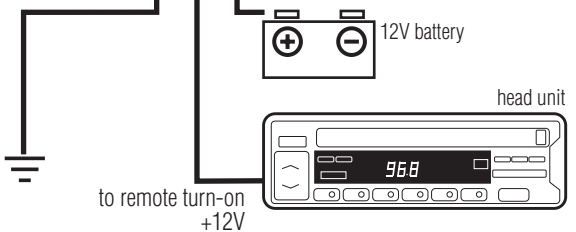
electrical connections

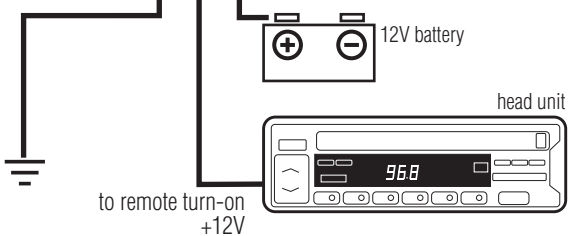
4 ch amp PB681X • PB881X • PBI881X

pb681X
pb881X
pbi881X







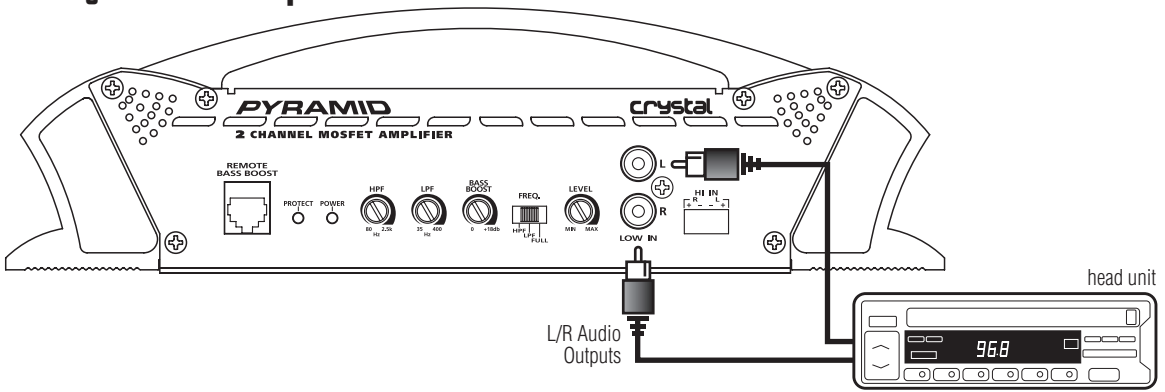


stereo input connections

2 ch amp PB481X • PB781X • PB1281X

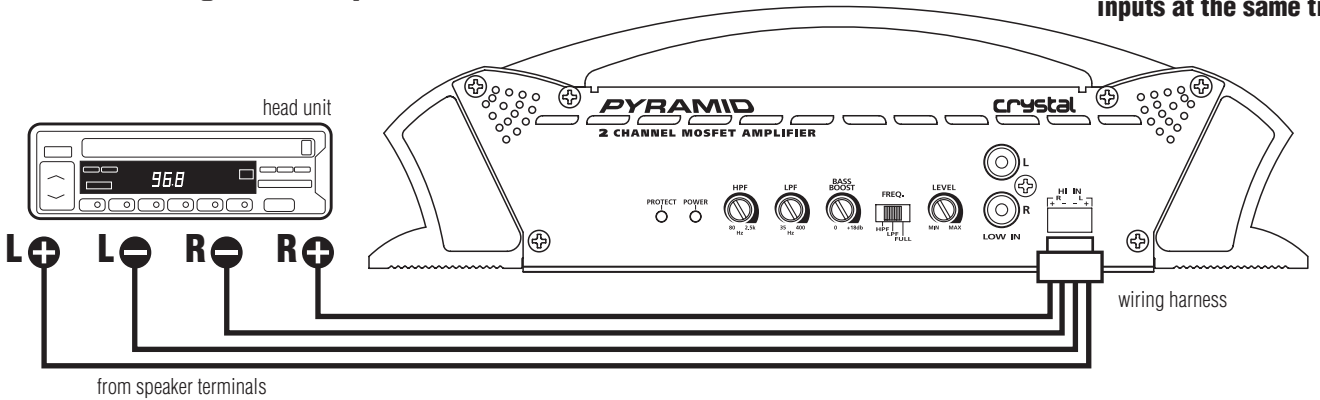
pb481X
pb781X
pb1281X

using low level inputs



using high level inputs

PLEASE NOTE! If using high level inputs, do not use the low level RCA inputs at the same time!

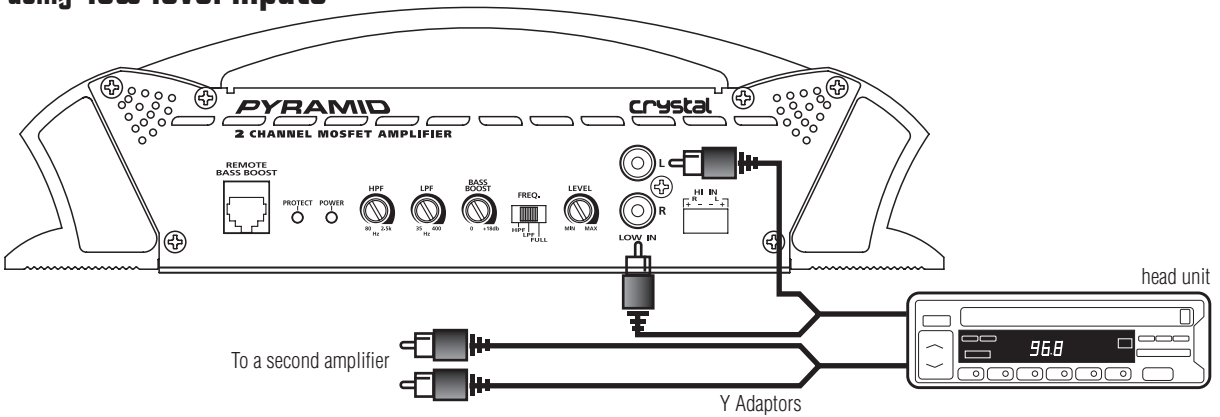


mono input connections

2 ch amp PB481X • PB781X • PB1281X

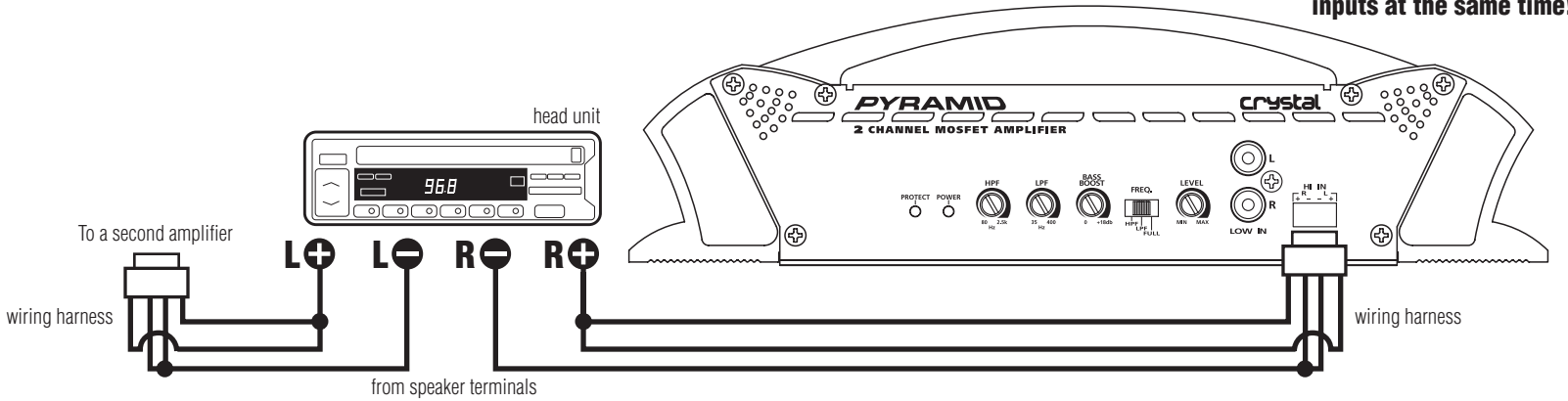
pb481X
pb781X
pb1281X

using low level inputs



using high level inputs

PLEASE NOTE! If using high level inputs, do not use the low level RCA inputs at the same time!

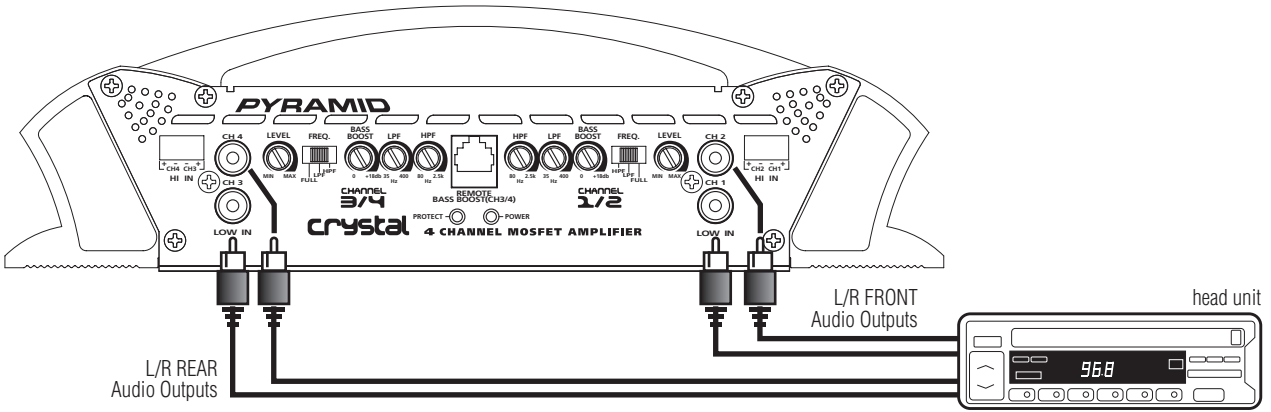


2/4 channel input connections

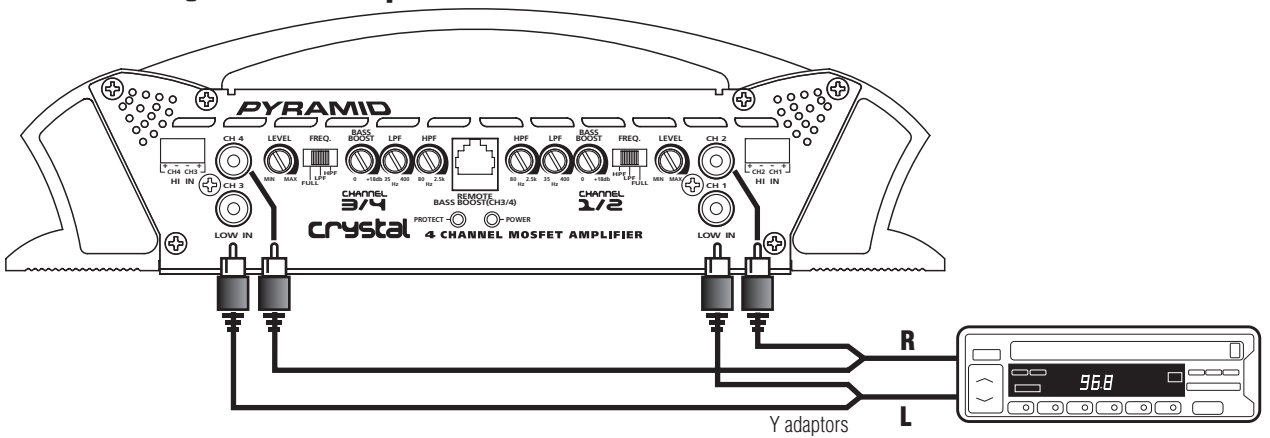
4 ch amp PB68IX • PB88IX • PBI88IX

pb68IX
pb88IX
pbI88IX

4 CH input connections using low level inputs



2 CH input connections using low level inputs

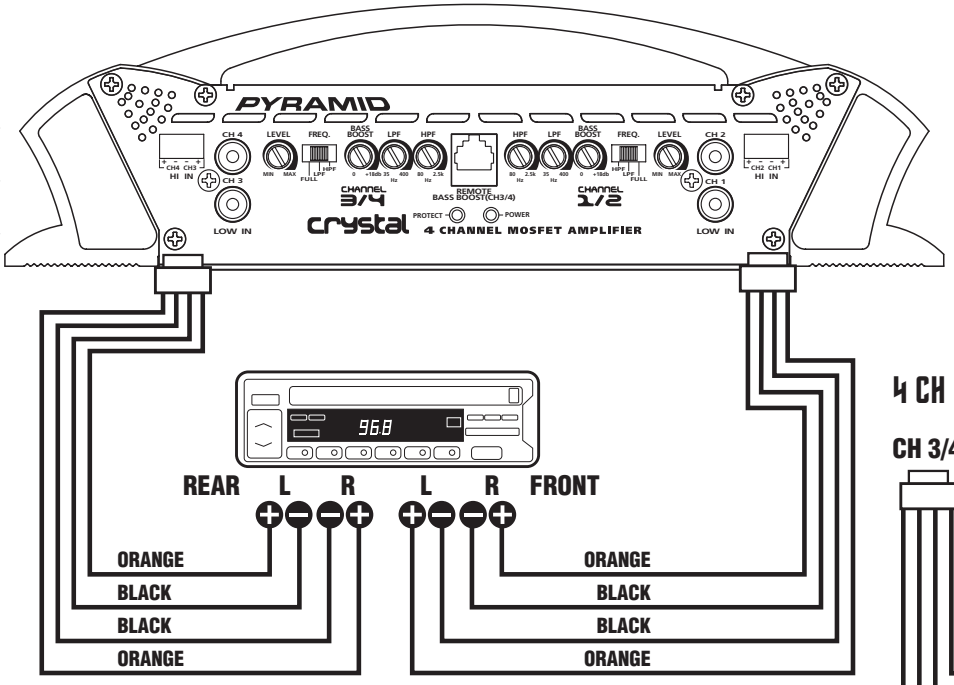


high level input connections

4 ch amp PB68IX • PB88IX • PBI88IX

pb68IX
pb88IX
pbI88IX

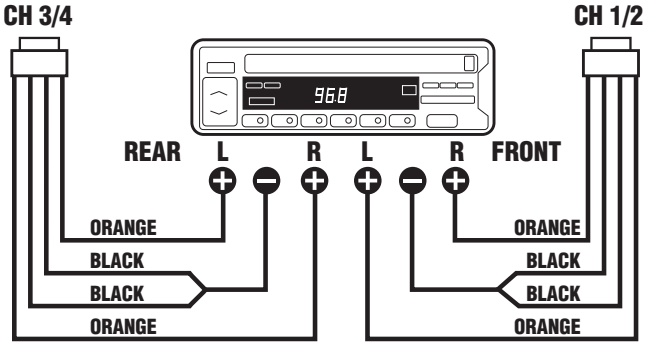
4 CH floating ground connections



from speaker terminals

PLEASE NOTE! If using high level inputs, do not use the low level RCA inputs at the same time!

4 CH harness wiring for common ground connections



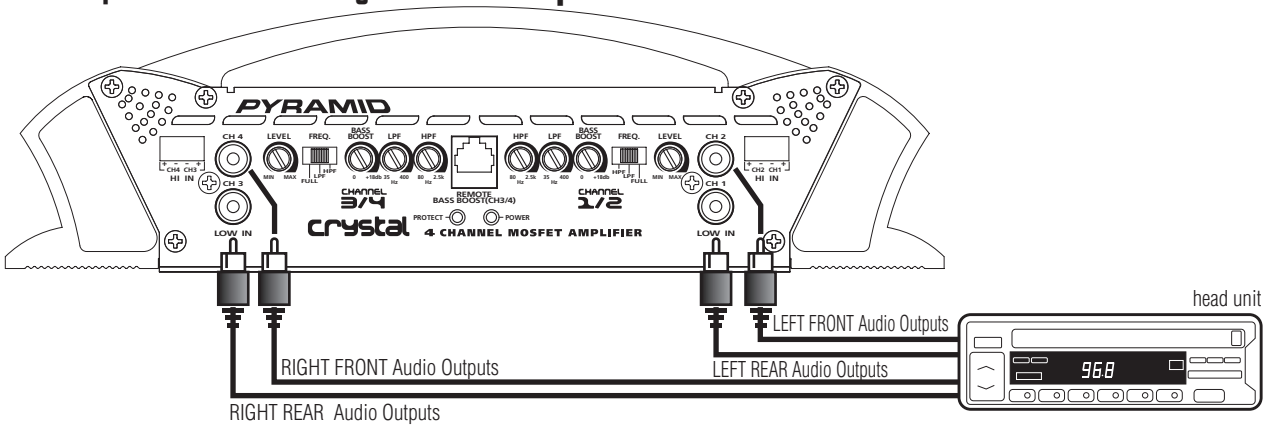
from speaker terminals

mono input connections

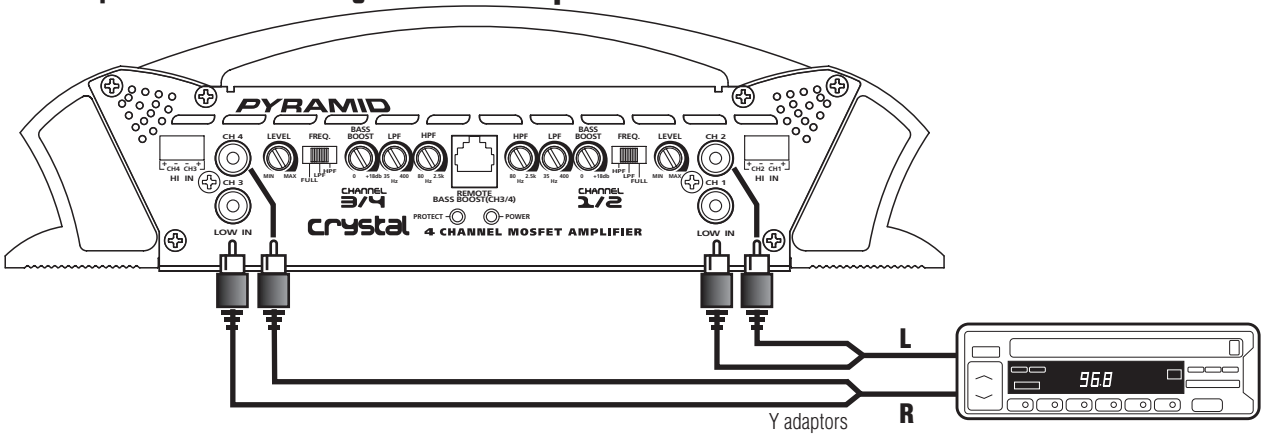
4 ch amp PB68IX • PB88IX • PBI88IX

pb68IX
pb88IX
pbI88IX

4 CH mono input connections using low level inputs



2 CH mono input connections using low level inputs

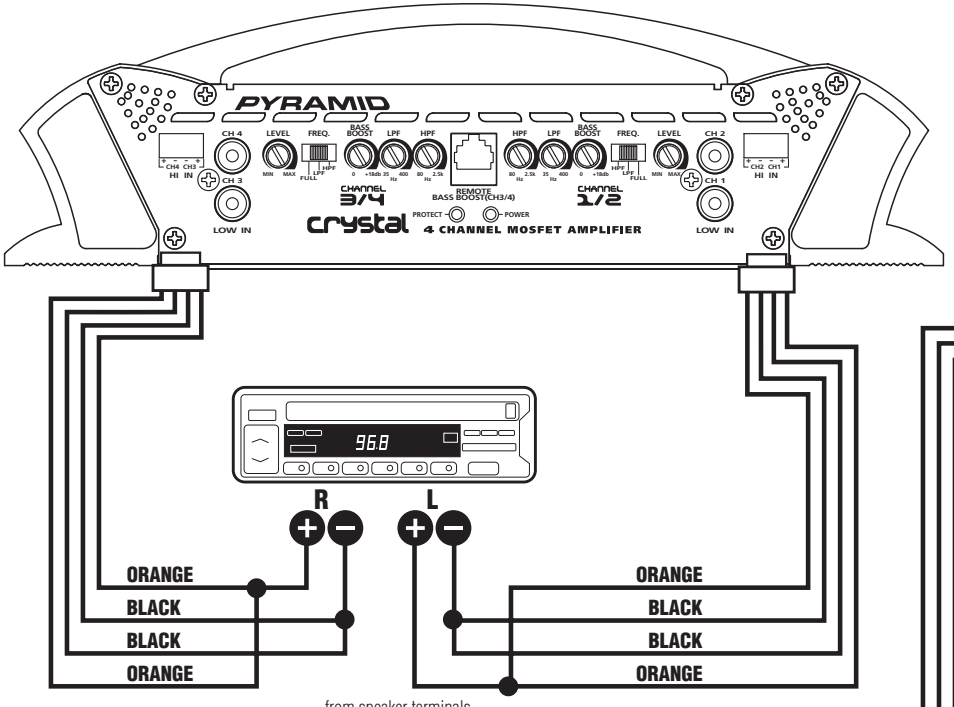


high level mono input connections

4 ch amp PB68IX • PB88IX • PBI88IX

pb68IX
pb88IX
pbI88IX

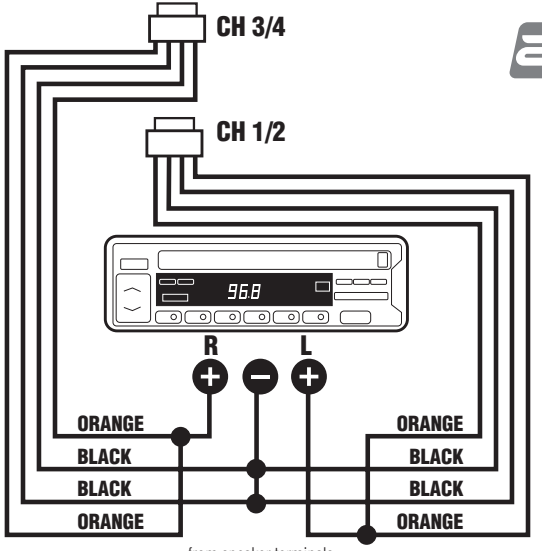
4 CH floating ground connections



from speaker terminals

PLEASE NOTE! If using high level inputs, do not use the low level RCA inputs at the same time!

4 CH harness wiring For common ground connections



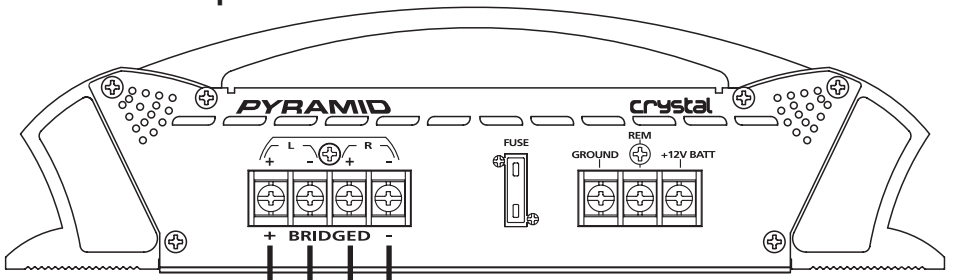
from speaker terminals

speaker connections

2 ch amp PB481X • PB781X • PB1281X

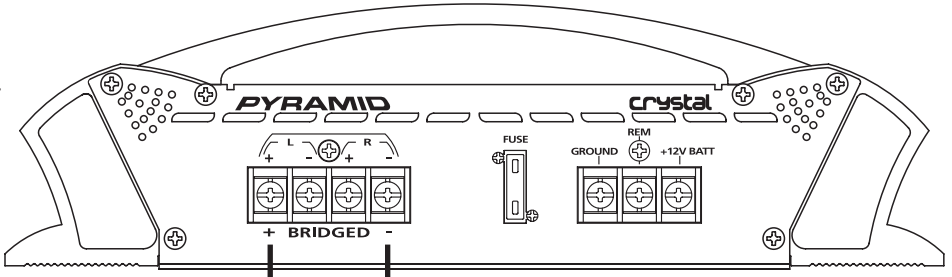
pb481X
pb781X
pb1281X

Stereo Output Mode



LEFT speaker RIGHT speaker

Bridged Mono Output Mode



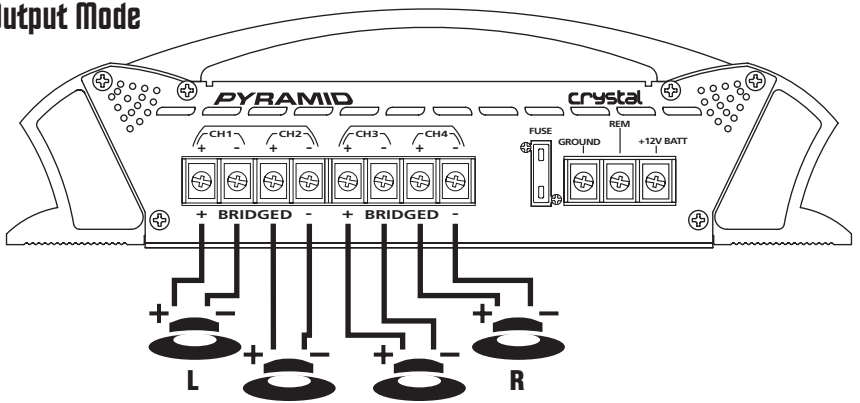
speaker

MINIMUM SPEAKER IMPEDANCE 4 OHMS!

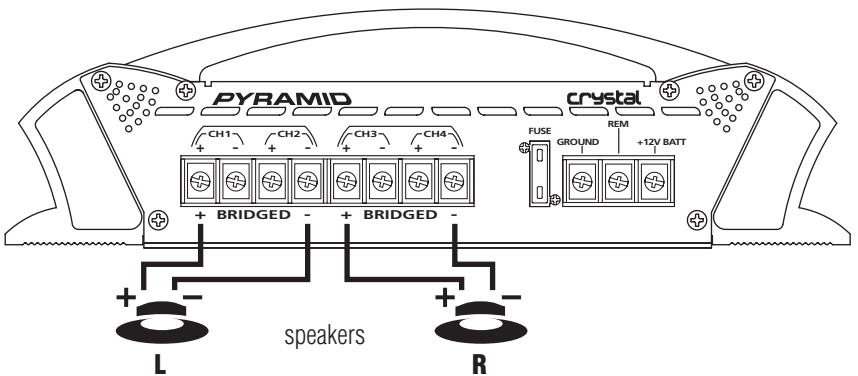
speaker connections

4 ch amp PB68IX • PB88IX • PBI88IX

4 CH Output Mode



Bridged Dual Mono Output Mode

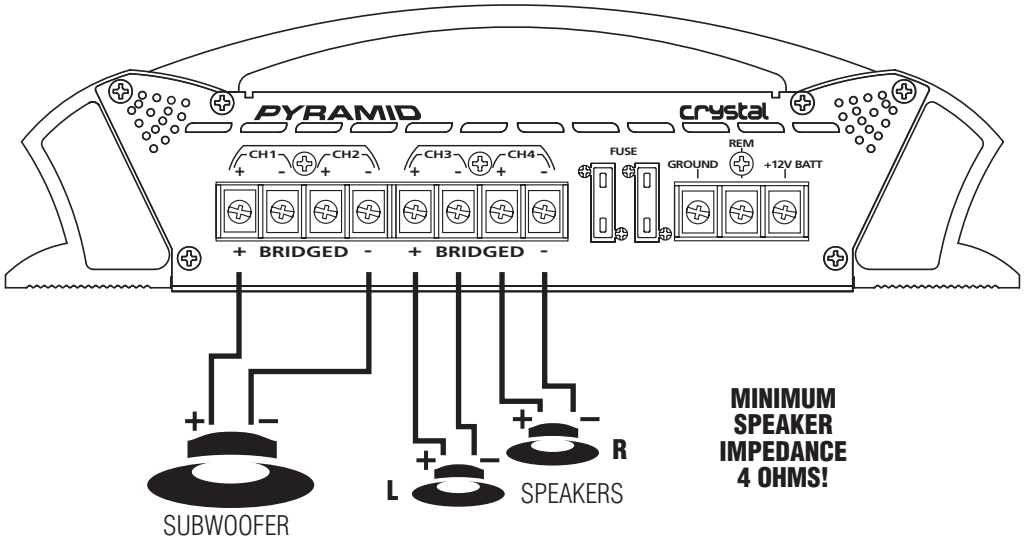


MINIMUM SPEAKER IMPEDANCE 4 OHMS!

speaker connections

4 ch amp PB68IX • PB88IX • PBI88IX

2 CH Bridged Output Mode with Subwoofer Output



mounting and installation

mounting

Your new Pyramid Crystal Series amplifier comes complete with all required mounting hardware. When determining a suitable location in your vehicle for the amp, please remember that it is a high-power electronic device capable of generating high heat.

For this reason, **always choose a location in your vehicle which has low vibration, adequate ventilation, a minimum of dust, and no moisture**. Be sure to mount the amp in such a manner as to allow reasonable airflow over the cooling fins.

Mark the location for the mounting screw holes by positioning the amp where you wish to install it and use a scribe (or one of the mounting screws) inserted in each of the mounting holes to mark the mounting surface. If the mounting surface is carpeted, measure the hole centers and mark with a felt tip pen.

Before attempting to drill the mounting holes, take note of any wires, lines or other devices in your vehicle which may be located behind the mounting surface! Then drill pilot holes in the mounting surface for the mounting screws and insert them. Tighten the screws securely.

wiring tips

When making electrical connections to your amplifier, please observe the following:

Use at least 8 gauge wire for power and ground connections.

Wire the amplifier directly to the car battery.

For the ground connection, use the shortest possible wire to a good chassis ground point.

Wire the Remote connection to the auto start lead of your head unit, equalizer or power antenna.

fuses

About power fuses:

Pyramid Crystal Series amplifiers feature built-in fuse systems. These fuses protect both the amplifier and the electrical system in your vehicle from fault conditions. If you ever need to replace the fuse in your Pyramid Crystal Series amp, use a fuse of exactly the same type and rating. A different type or rating of fuse may result in damage or fire.

protection circuitry

The built-in protection circuitry in the Pyramid Crystal amplifiers will disable the amplifier if it senses an input overload, a speaker short circuit, or extreme temperature conditions.

When the protection circuit is activated by any of these conditions, the Protection LED will be illuminated.

If this occurs, carefully inspect the system to determine the source of the problem.

• If the shutdown was a result of a thermal overload condition, allow the amplifier to cool down before attempting to restart it.

• If the shutdown was a result of an input overload, or speaker short circuit, be sure to correct the condition before restarting.

The amplifier can be restarted by turning the remote power OFF and then ON again.

troubleshooting

No output.
Confirm that all terminal strip connections are secure and tight.

Check both in-line and built-in fuses. Both the +12V and the Remote terminals must have +12v referenced to chassis ground.

Confirm that the audio signal source (car radio, equalizer, etc.) is connected and is supplying output signal. To check if the amp is supplying signal, unplug the cables from the signal source (but leave them plugged into the amp). Briefly tap the center pin of each of the disconnected RCA plugs with your finger. This should produce a noise (feedback) in your speakers.

Only one channel works.
Confirm that all terminal strip connections are secure and tight.

Check the Balance control on the head unit (or other source) to verify that it is set to its midpoint.

If you are using the Low Level RCA input, reverse the input plugs at the amplifier (i.e., switch the L with the R). If the channels which is silent switches to the other side, the problem is either in the head unit/other source or the connecting cables.

Weak output.
Readjust the Input Level Control(s) to better suit the input signal.

Noise in the audio.
If the noise is a “whine” whose pitch follows the engine speed, confirm that the amplifier and any other signal sources (head unit, etc.) are properly grounded.

If the noise is a “clicking” or “popping” noise whose rate follows the engine speed, this usually means that the vehicle is equipped with resistor spark plugs and wires, or that the ignition is in need of service.

Check the rounting of the speaker and input wires to make sure they are not adjacent to wires which interconnect lights and other accessories.

If the above steps fail to improve or clear noise interference, the system should be checked by a professional mobile audio installer.

precautions

Do not operate the amplifier when it is unmounted. Attach all audio system components securely within the automobile to prevent damage, especially in an accident.

Do not mount this amplifier so that the wire connections are unprotected, or in a pinched condition, or likely to be damaged by nearby objects.

Before making or breaking power connections in your system, disconnect the vehicle battery. Confirm that your head unit or other equipment is turned off while connecting the input jacks and speaker terminals.

If you need to replace the power fuse, do so only with a fuse identical to that supplied with the amplifier. Using a fuse of a different type or rating may result in damage that isn't covered in the manufacturer's warranty.

notes